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Douglas I. Brandon Vice President Vet I. & arishall Emetzi

Fourth Floor
1150 Connecticut Avenue, UW
Washington, DC 20036
202 223-9222
AMRELESS 202 253-9096
Goug.branden@attwe.com

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OFFICE OF THE SECRETARY

PROUD PARTNER

Marlene H. Dortch Secretary Federal Communications Commission 445 12<sup>th</sup> Street, S.W. Washington, D.C. 20554

BE: AT&T Wireless Services, Inc. Quarterly Report

In the Matter of Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems

CC Docket No. 94-102

Dear Ms. Dortch:

As required by its IDMA Consent Decree, and GSM Consent Decree, AT&T Wireless Services, Inc. ("AWS") hereby submits the attached Quarterly Report ("Report") on its progress toward and compliance with the terms and conditions of the TDMA Consent Decree, GSM Consent Decree, and the Commission's E911 rules.

## I. AWS TDMA Network

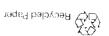
Phase I and Phase II Requests: This Report includes information on all pending requests for Phase I and Phase II E911 service on AWS' TDMA network, including the entity requesting service,<sup>3</sup> the date the request was received, and the status of the request.<sup>4</sup> For PSAP

AT&T Wireless Services, Inc., File No. EB-02-TS-002, NAL/Acct. No. 200232100003, FRN 0003-7665-32, Order, FCC 02-174 (rel. June 18, 2002) ("TDMA Consent Decree").

AT&T Wireless Services, Inc., File No. EB-02-TS-018, NAL/Acct. No. 200232100002, FRN 0003-7665-32, Order, FCC 02-283 (rel. Oct. 9, 2002) ("GSM Consent Decree").

As in previous quarterly reports, AWS has listed pending requests by "requesting entity" (which may include multiple PSAPs) and has listed activated PSAPs by requesting and by

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requests that have been pending for over six months, AWS also has included the projected deployment date and a briefdescription of the reasons tor the delay.'

Phase II Service: AWS has contracted with the Grayson Wireless division of Allen Telecom, Inc. ("Grayson") to provide a network-based Phase II location solution for its TDMA network. Grayson has informed the Commission that its technology satisfies the Commission's Phase II accuracy requirements for network-based solutions.<sup>6</sup>

Pursuant to paragraph 12(a)(2) of the <u>TDMA Consent Decree</u>, AWS was obligated "[t]o deploy a Phase II compliant technology at a minimum of 2,000 cell sites and provide Phase II service at all these sites by December 31, 2002." As of December 31, 2002, AWS had deployed

PSAP. AWS is utilizing this format because when it initially receives a request, it doer not know whether each PSAP will actually be ready to receive service by the end of the six-month deployment period. AWS does not obtain this information until late in the deployment process, following call routing decisions by the requesting entity and related testing.

See exhibits 1, 2, 3, 4, and 5

See exhibits 2 and 5. AWS has included this information for pending Phase II PSAP requests even though AWS is not required to identify the reasons for any delay in providing service in response to a Phase II request or provide a projected deployment date until after March 30,2003. See TDMA Consent Decree at ¶ 14(a).

See, e.g., Letter from Eliot J. Greenwald, Swidler Berlin Shereff Friedman, LLP, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 94-102, at 1 (May 7, 2001). As set forth in paragraph 12(c) of the TDMA Consent Decree, AWS "is relying on vendor representations in agreeing to the deployment schedule set forth herein and for its belief that a network-based solution will satisfy the Commission's accuracy requirements," TDMA Consent Decree at ¶12(c), and "will derive its network-wide location accuracy by selecting the 67 percent and 95 percent accuracy numbers from a set of test data weighted in accordance with OET Bulletin No. 71, Guidelines for Testing and Verifying the Accuracy of Wireless E911 Location Systems, Apr. 12, 2000." TDMA Consent Decree at n.19. OET Bulletin No. 71 states that accuracy testing may be based on the coverage areas of local PSAPs that request Phase II deployment or the wireless carrier's entire advertised coverage area within a metropolitan market.

<sup>7</sup> TDMA Consent Decree at ¶ 12(a)(2)





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Phase II compliant technology on its TDMA network at 3292 sites. AWS previously had received PSAP requests for Phase II E911 service for all of these cell sites. Of these, AWS had successfully tested the operation of its Phase II TDMA service at a total of 2,605 cell sites, with 124 PSAPs connected to 1168 sites capable of receiving and utilizing the Phase II information delivered by AWS. AWS has sought clarification that it complied with the December 31, 2002 in-service benchmark because it completed all tasks within its or its vendors' control to provide Phase II service and "short-tested" its system with 240 PSAPs connected to 2,605 sites, despite the fact that the requesting PSAPs were only ready to receive and utilize the data at 1168 of those sites. In the alternative, AWS asked the Enforcement Bureau to modify the December 31 benchmark to specify that AWS must provide Phase II service *or* short-test its Phase II system at a minimum of 2,000 cell sites by December 31, 2002. That request remains pending. 9

AWS remains concerned that integration of its Phase II E911 service will be hampered by ongoing issues beyond its control associated with PSAP readiness and ILEC pricing." For example, while First Office Application ("FOA") testing was completed successfully for AWS' Lucent and Friesson infrastructure several months ago: AWS' FOA test for the Nortel infrastructure in Fort Myers. Florida has been delayed by two weeks because of PSAP and ILEC readiness issues. While only a slight delay, earlier difficulties involving the original Nortel FOA in Portland. Oregon placed into jeopardy Phase 11 deployments covering 75 PSAPs and 890 cell

See November 1,2002 Ouarterly Report at 2.



Most of the other PSAPs were unable to receive and utilize the data as a result of PSAP cost issues, such as the lack of an ILEC tariff.

For this report, AWS has divided activated PSAPs into two categories. Exhibit 4 lists PSAPs where AWS has completed all of the necessary steps for Phase II deployment, other than the steps that arc dependent on PSAP readiness, and has confirmed the functional readiness of AWS' location system to deliver location data ("short tested PSAPs"). Exhibit 3 lists PSAPs that have been "integrated" and are receiving and utilizing the Phase II information delivered by AWS.

See, e.g., Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, AT&T Wireless Services, Inc. Quarterly Report at 3-4 (filed Aug. 1,2002) ("August 1,2002 Ouarterly Report"); AT&T Wireless Services, Inc. Interim Report at 3-4 (filed Oct. 18, 2002) ("October 18, 2002 Interim Report"); AT&T Wireless Services, Inc. Quarterly Report at 2-6 (filed Nov. 1, 2002) ("November 1.2002 Quarterly Report").



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sites. 12 Integration of these Nortel Phase II deployments with the requesting PSAPs must await completion of the Nortel FOA.

#### II. AWS GSM Network

Phase I and Phase II Requests: This Report includes a list of all markets where AWS has launched GSM service and the date AWS began offering service in each market." The Report also includes information on all pending requests for Phase I and Phase II E91 I service in these markets, including the entity requesting service, <sup>14</sup> the date the request was received," and the status of the request." For PSAP requests that have been pending for over six months, AWS also has included the projected deployment date and a brief description of the reasons for the delay. <sup>17</sup>

- See October 18, 2002 Interim Report at 4
- See exhibit 6.
- As in previous quarterly reports. AWS has listed pending requests by "requesting entity" (which may include multiple PSAPs) and has listed activated PSAPs by requesting entity and by PSAP. AWS is utilizing this format because when it initially receives a request, it does not know whether each PSAP will actually be ready to receive service by the end of the six-month deployment period. AWS does not obtain this information until late in the deployment process, following call routing decisions by the requesting entity and related testing.
- While AWS tracks PSAP requests based upon the date the request was received, AWS frequently receives requests for Phase II service in markets where AWS has not yet deployed GSM service. Under the FCC's rules, the six month deadline for responding to a PSAP request does not begin to run in a given GSM market until the date that AWS begins offering service there. Sec 47 C.F.R. § 20.18(a) (stating that service providers are subject to the FCC's 911 rules "solely to the extent that they offer real-time, two way switched voice service that is interconnected with the public switched network...") (emphasis added).

See exhibits 7, 8, and 9

See exhibits 8 and 9. AWS has included this information for pending Phase II PSAP requests even though AWS is not required to identify the reasons for any delay in providing service in response to a Phase II request or provide a projected deployment date until after April 30, 2003. See GSM Consent Decree at ¶ 11(a).





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Phase II Service: AWS has ordered equipment from Grayson to provide a network-based Phase II location solution for AWS' GSM network that is similar to the TDOA solution Grayson is providing for AWS' TDMA network. Grayson has informed the Commission that its technology satisfies the Commission's Phase II accuracy requirements." As set forth in paragraph 9(c) of the GSM Consent Decree. AWS "is relying on vendor representations in agreeing to the deployment schedule set forth herein and for its belief that a network-based solution will satisfy the Commission's accuracy requirements." 19

AWS has completed the preliminary lab tests of the new elements of the Grayson GSM TDOA solution, which include the Abis Monitoring Unit ("AMU") and the Wireless Location Sensor ("WLS") units.<sup>20</sup> These new elements have been installed in the Nokia FOA test bed and

The Grayson infrastructure for GSM networks is composed of three main components: (i) the Abis Monitoring Unit ("AMU"); (ii) the Wireless Location Sensor ("WLS"); and (iii) the Geolocation Control System ("GCS"). Typically, WLS units are installed at cell site locations, an AMU is installed at the Base Station Controller location, and a GCS unit is installed at the mobile switching center. The AMU extracts the required location information from the GSM network and transfers the information to the GCS. The GCS serves as the central hub of the Grayson installation, receiving tasking for location data, commanding WLS units to measure handset RF emissions, calculating a location based on the returned WLS measurements, and reporting location data in response to the PSAP request. AWS advised the Commission in its December Interim Report that Grayson had installed its dual mode GCS in the AWS market selected for the FOA of the GSM TDOA Phase II technology.



See, e.g., Letter from Eliot J. Greenwald, Swidler Berlin Shereff Friedman, LLP, to William F. Caton, Acting Secretary, FCC, CC Docket No. 94-102, at 1 (March 26, 2002); Letter from Eliot J. Greenwald, Swidler Berlin Shereff Friedman, LLP, to Magalie Roman Salas, Secretary. FCC, CC Docket No. 04-102. at 1 (May 7, 2001).

GSM Consent Dccrce at ¶9(c). AWS "will derive its nctwork-wide location accuracy measurements by selecting the 67 percent and 95 percent accuracy numbers from test data weighted in accordance with OET Bulletin No. 71. Guidelines for Testing and Verifying the Accuracy of Wireless E911 Location Systems, Apr. 12,2000" and AWS' "location accuracy testing should be consistent with the guidelines of OET Bulletin No. 71, which states that accuracy testing may be based on the coverage areas of local PSAPs that request Phase II deployment or the wireless carrier's entire advertised coverage area within a metropolitan market." Id. at n. 10.



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currently are being integration tested by Grayson in preparation for the FOA. Under the current project schedule, AWS plans to begin the Nokia FOA in early February and complete it in mid-March. AWS plans to install the AMU in the Ericsson FOA test bed in early February. The WLS units have already been installed in the Ericsson test bed and are in the process of being integration rested by Grayson. AWS plans to begin the Ericsson FOA in early March and expects *to* complete it in mid-April.

Pursuant to paragraph 9(a)(1) of the <u>GSM Consent Decree</u>, AWS was obligated "[t]o deploy a Phase II compliant technology at a minimum of 1,000 cell sites on its GSM network by January 3 L 2003."" which required AWS to install at the cell site "all hardware and base release software necessary to provide Phase II service." While testing of the Grayson GSM TDOA solution continues, Grayson has been installing the equipment in AWS cell sites in order to satisfy the benchmarks set forth in the <u>GSM Consent Decree</u>. As of January 31, 2003, AWS has deployed the technology in 1343 cell sites, satisfying the first benchmark. <sup>24</sup>

GSM Compliance Pian: Paragraph 2 of Attachment A to the GSM Consent Decree required AWS to send out a written advisory on the E911 rules, the requirements of the consent decree, and sections 1.17 and 1.65 of the FCC's rules by December 9, 2002. On that date, Peter White. E911 Compliance Officer for AWS, supervised the distribution of the written advisory A copy is attached hereto as exhibit 11.

**As** required by the <u>TDMA Consent Decree</u> and the <u>GSM Consent Decree</u>, a copy of this Report is being filed with the Chief of the Enforcement Bureau, the Chief of the Wireless Telecommunications Bureau, and the Executive Directors and Counsels of APCO, NENA, and

<sup>25</sup> GSM Consent Decree at Attachment A, ¶ 1.



GSM Consenl Decree at  $\P 9(a)(1)$ .

Id. at ¶ 3(i).

Sce GSM Consent Decree at n. 9 (explaining that the network-based location technology that AWS currently plans to employ has not yet been fully validated on AWS' network),

Under the terms of the <u>GSM Consent Decree</u>, AWS must identify the 1343 cell sites at which its Phase II technology has been installed. <u>GSM Consent Decree</u> at ¶ I1(b)(3). The cell sites in question arc identified in exhibit 10.



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NASNA, as well as the other staff listed below. If you have any questions, please contact the undersigned.

Sincerely,

Dauglas D. Brandon/mmm

Douglas I. Brandon

#### Attachments

cc: David H. Solomon, Chief, Enforcement Bureau
Thomas J. Sugrue, Chief, Wireless Telecommunications Bureau
John Kamsey, Executive Director, APCO
Robert M. Gurss, Counsel, APCO
Jim Goerke, Interim Executive Director, NENA
James R. Hobson, Counsel, NENA
Evelyn Bailey, President, NASNA

Bryan Tramont Jennifer Manner Paul Margie Samuel Fcder Barry Ohlson

James Schlichting Blaise Scinto Patrick Forster

Jennifer Tomchin Lisa Fowlkes Kathryn Berthot



## AFFIDAVIT OF GREG LANDIS

I, Greg Landis, do hereby declare under penalty of perjury under the laws of the United States of America that the following is true and correct:

I am an officer of AT&T Wireless Services, Inc.

I have reviewed the AWS E91 1 Phase II Quarterly Report and to the best of my knowledge, information, or belief, all of the information contained in the Report i truthful and accurate.

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### AFFIDAVIT OF ROD NELSON

I. Rod Nelson, do hereby declare under penalty of perjury under the laws of the United States of America that the following is true and correct:

I am an officer of AT&T Wireless Services, Inc.

I have reviewed the AWS E911 Phase II Quarterly Report and to the best of my knowledge, information, or belief all of the information contained in the Report is truthful and accurate.

**Rod** Nelson

Executive Vice President & Chief Technology Officer

Executed on February 3, 2003

#### AFFIDAVIT OF GREGORY SLEMONS

I, Gregory Slemons, am an officer of AT&T Wireless Services, Inc

I have reviewed the AWS E911 Phase II Quarterly Report and to the best of my knowledge, information, or belief, all of the information contained in the Report is truthful and accurate.

I do hereby declare under penalty of perjury that the foregoing is true and correct

Gregory Stemons

Executive Vice President - Wireless Network Services

Executed on \_\_\_\_//3//03